4,698,509 9,225,915

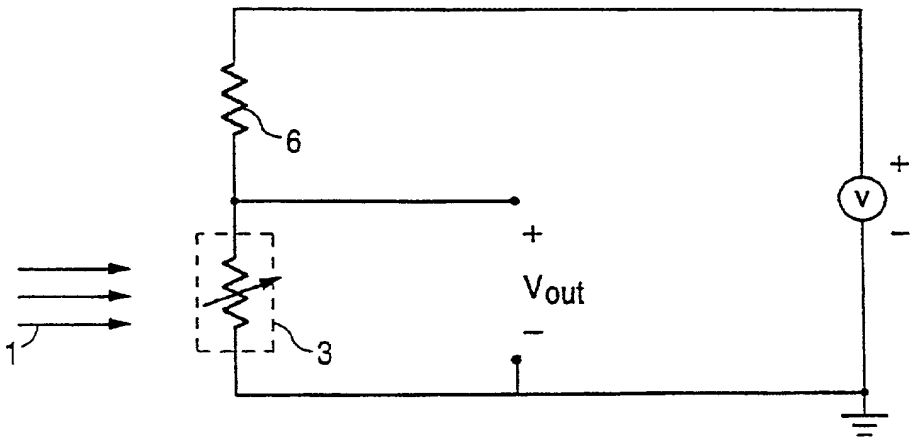


Fig. 1
(PRIOR ART)

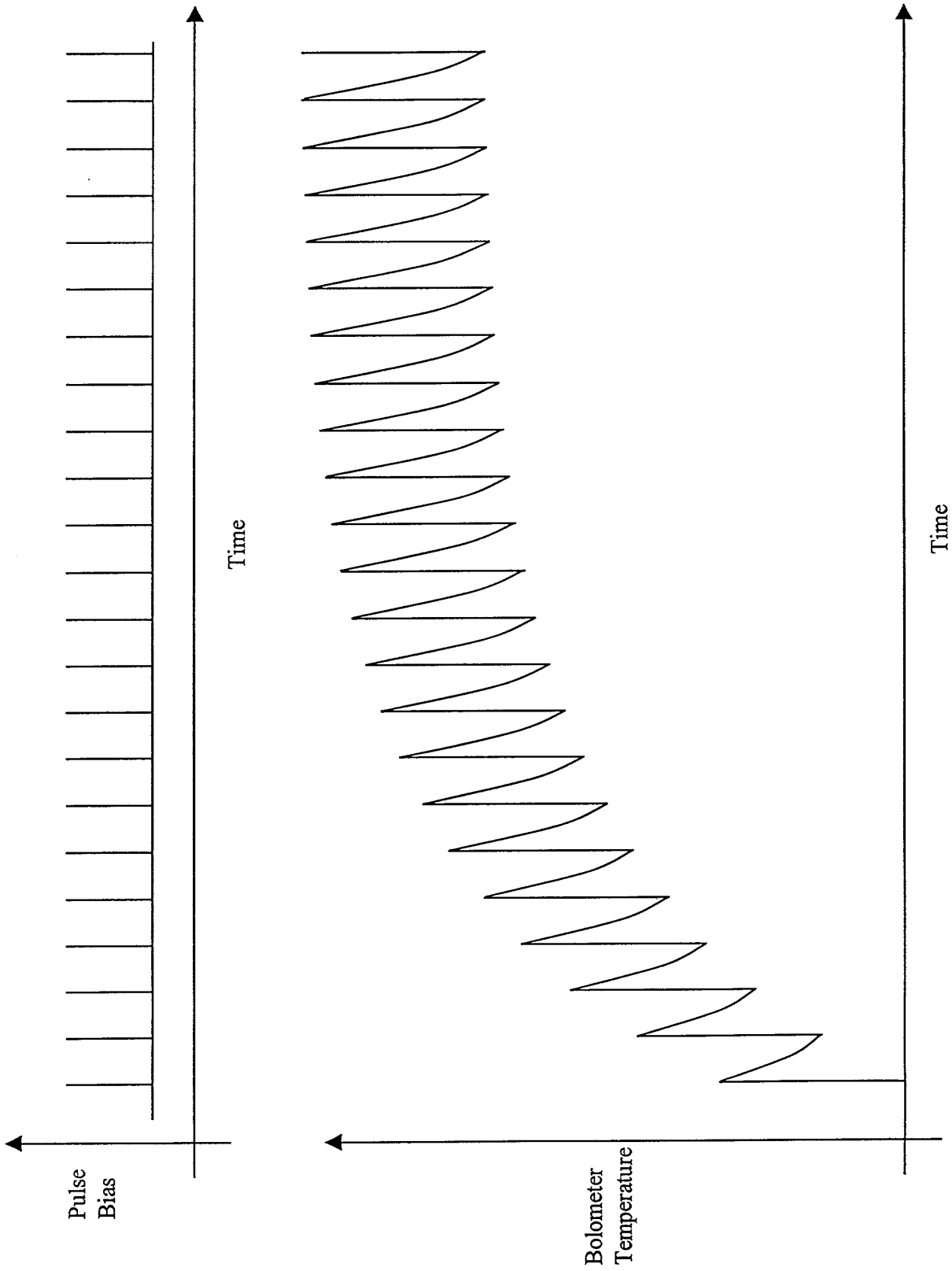


Fig. 2

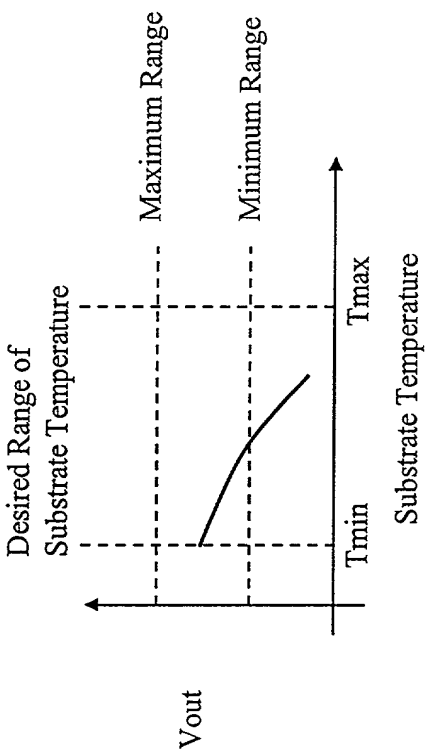


Fig. 3

2472209 "92250607

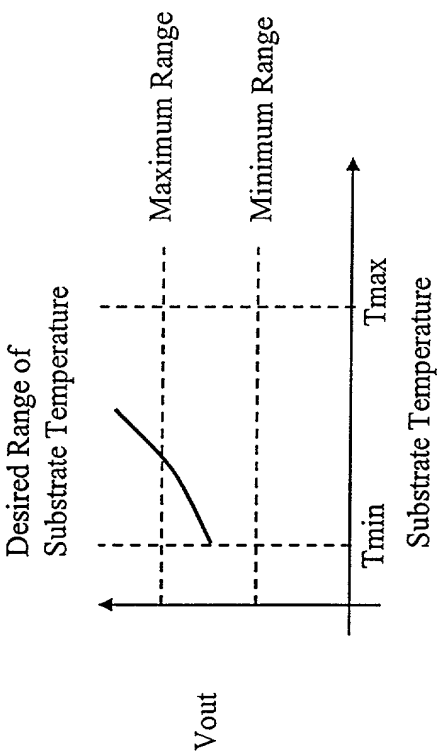

Desired Range of
Substrate Temperature
Maximum Range
Minimum Range
Vout
Tmin
Tmax
Substrate Temperature

Fig. 4

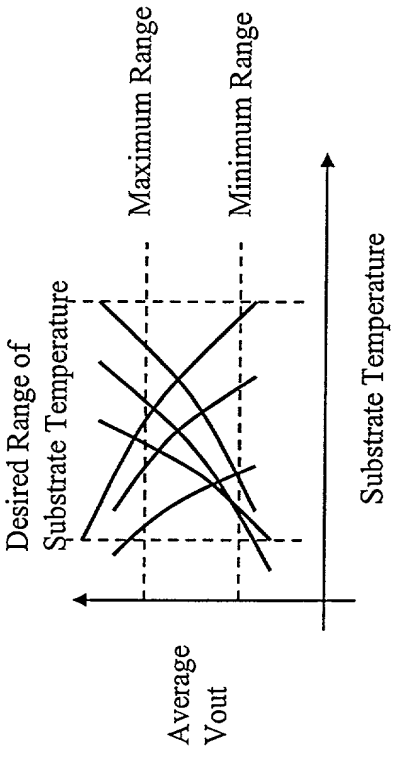

Desired Range of
Substrate Temperature
Maximum Range
Minimum Range
Substrate Temperature
Average
Vout

Fig. 5

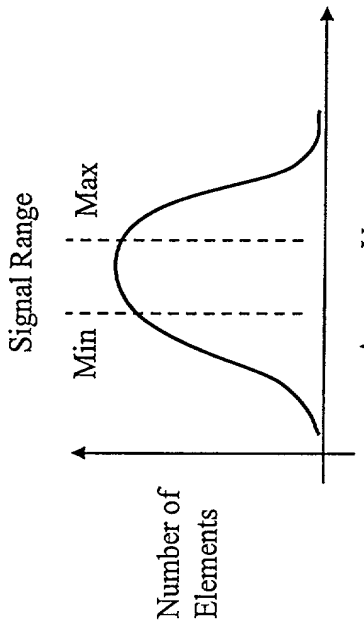

Signal Range
Min
Max
Average Vout
Number of
Elements

Fig. 6

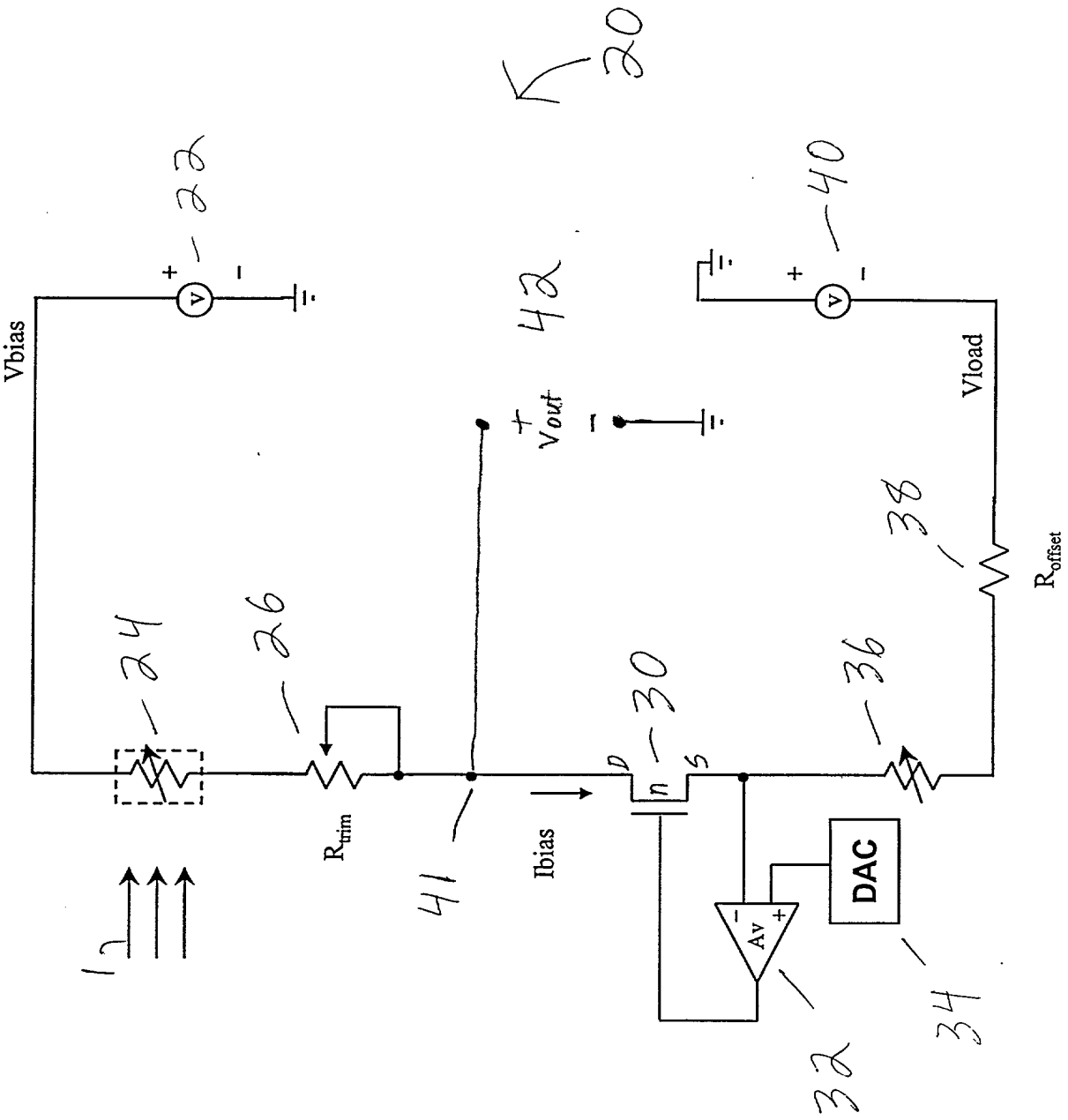

20
22
40
42
Vbias
Vout
Vload
24
26
30
36
38
Rtrim
Roffset
41
Ibias
12
DAC
Av
32
34

Fig. 7a

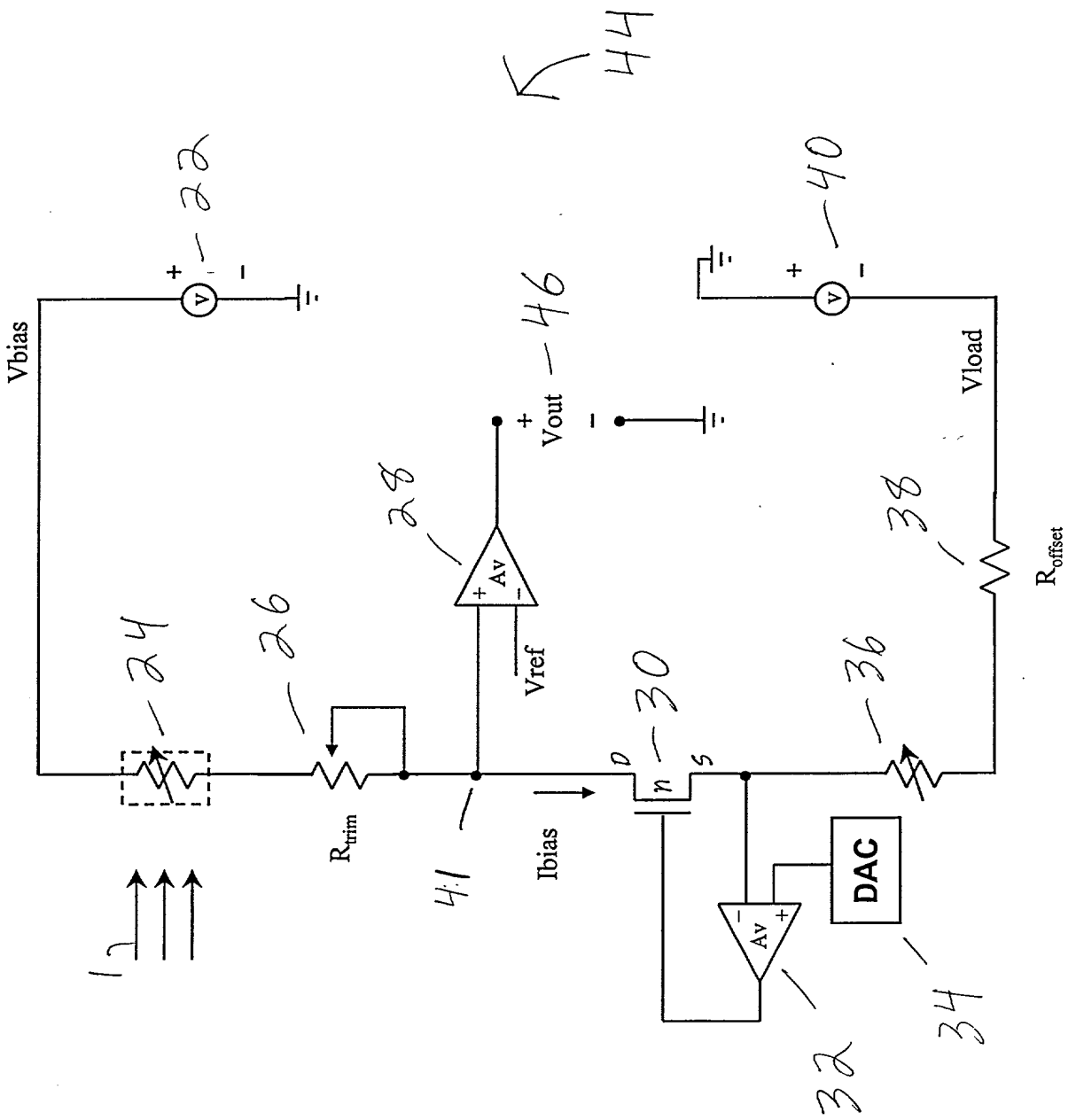


Fig. 7B

20220229.922380.07

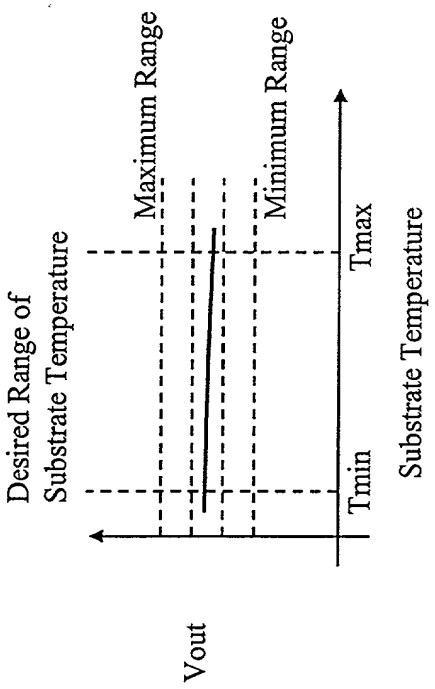

Desired Range of
Substrate Temperature
Maximum Range
Minimum Range
Vout
Tmin
Tmax
Substrate Temperature

Fig. 8

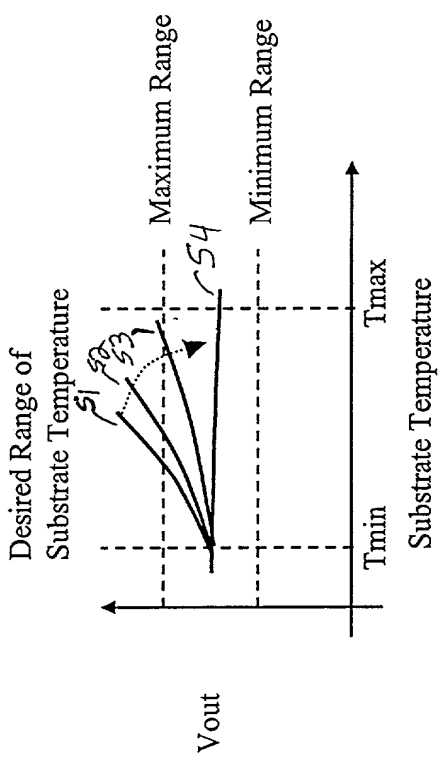

Desired Range of
Substrate Temperature
Maximum Range
Minimum Range
S1
S2
S3
S4
Vout
Tmin
Tmax
Substrate Temperature

Fig. 9

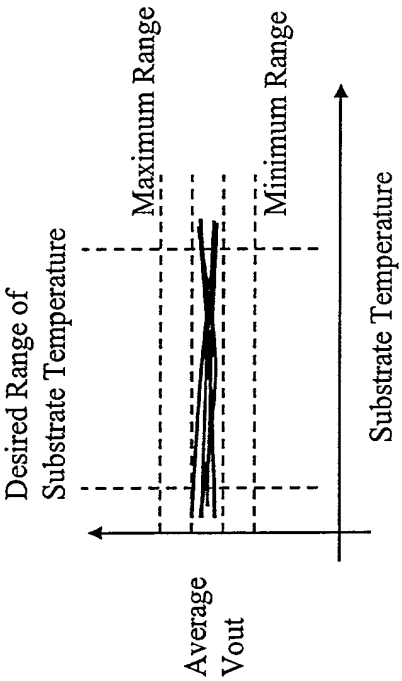

Desired Range of
Substrate Temperature
Maximum Range
Minimum Range
Substrate Temperature
Average
Vout

Fig. 10

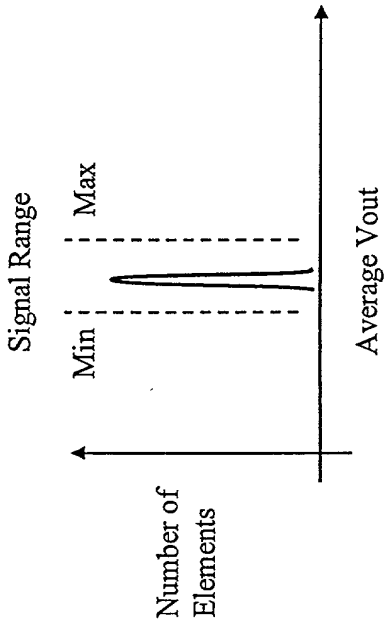

Signal Range
Max
Min
Average Vout
Number of
Elements

Fig. 11

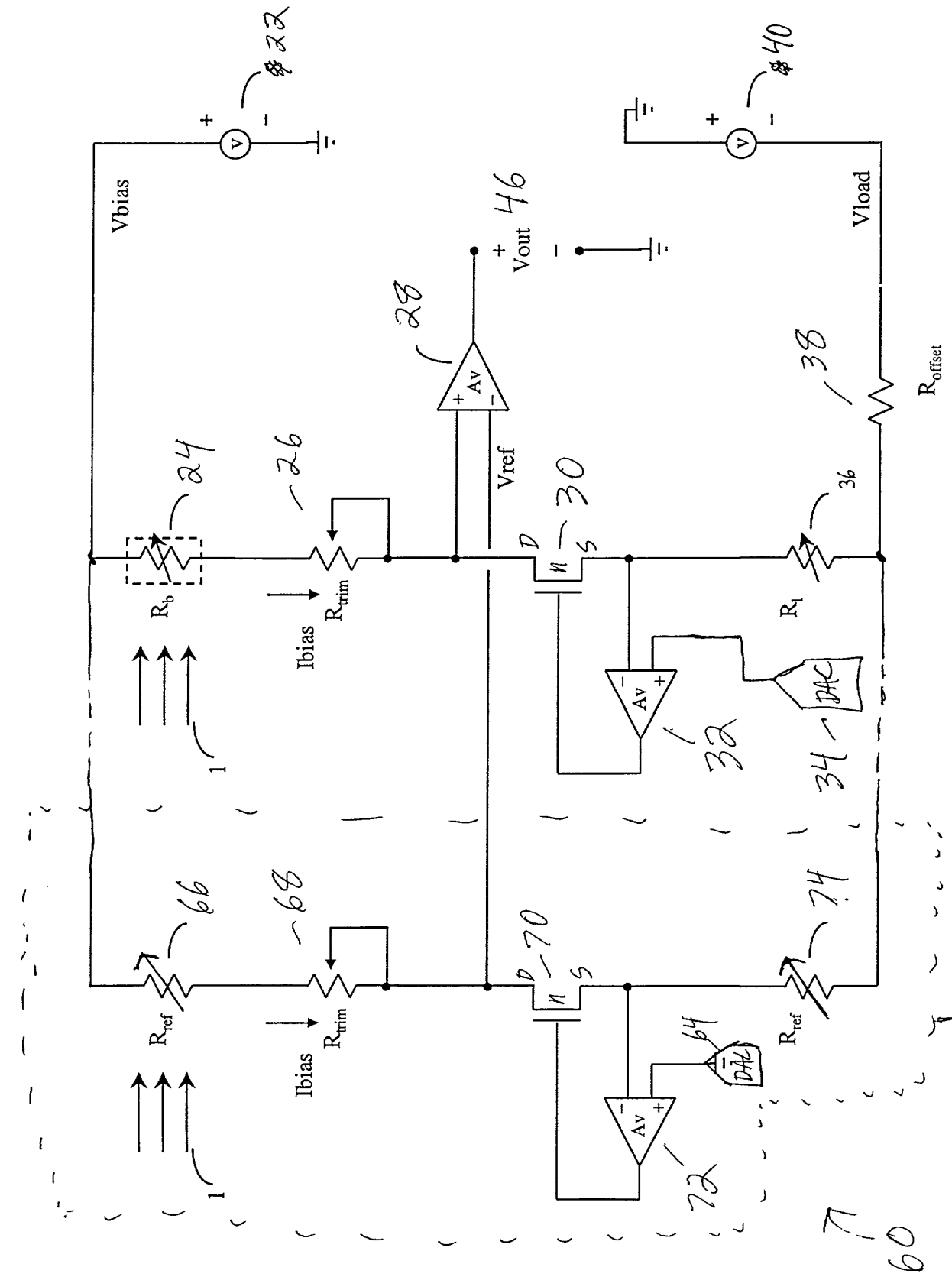

Vbias
Vload
Vout
Vref
Ibias
Ibias
Av
Av
Av
Av
DAC
DAC
D
S
D
S
1
1
22
40
46
28
24
26
30
38
36
32
34
66
68
70
74
64
72
62
60

Fig. 12

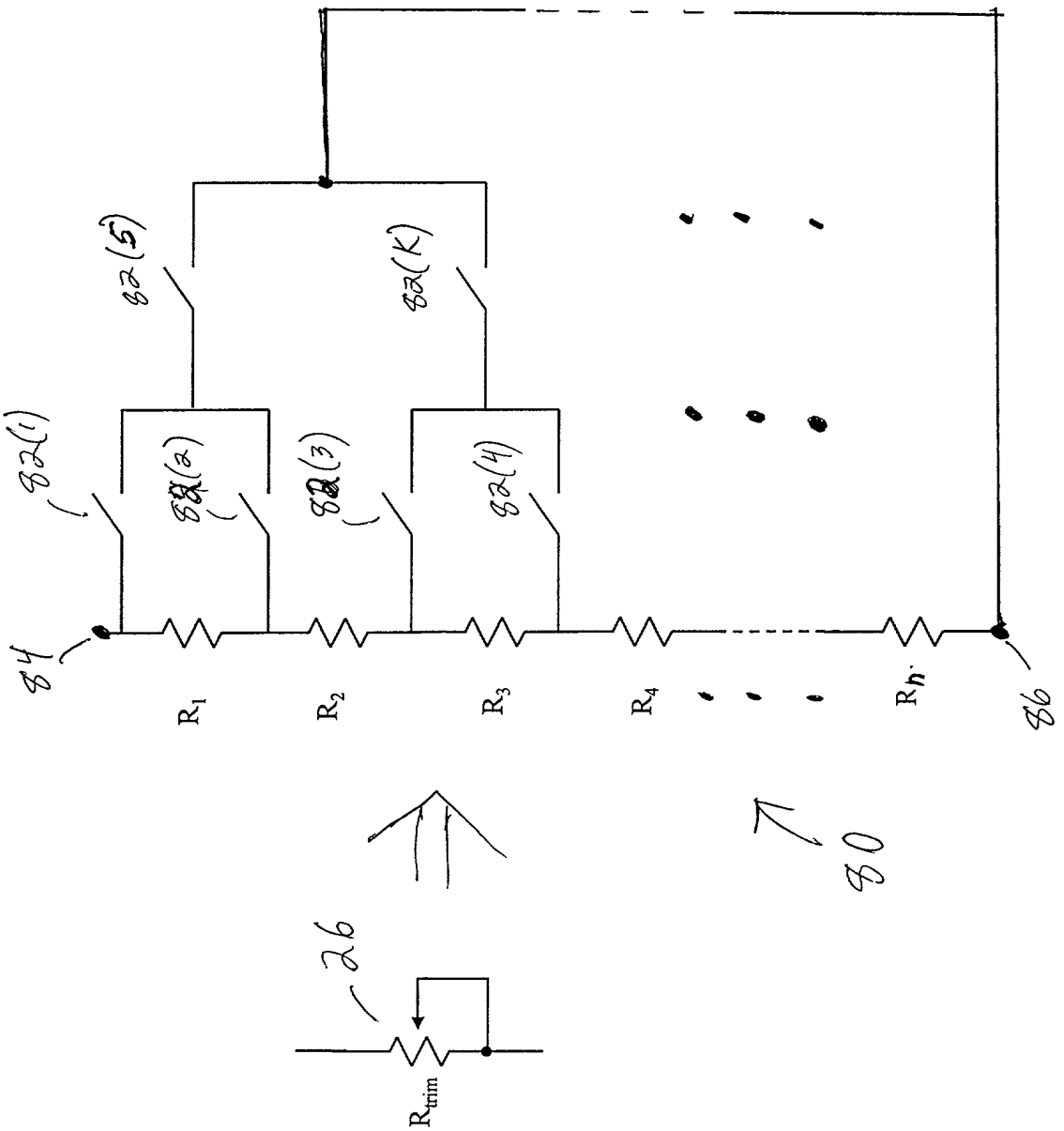


Fig. 13

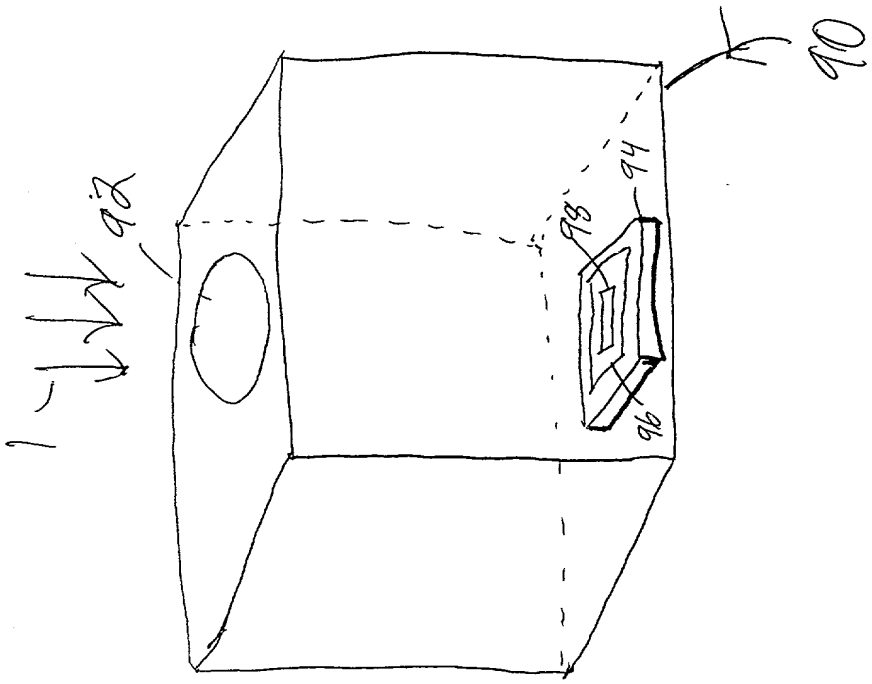


Fig. 14

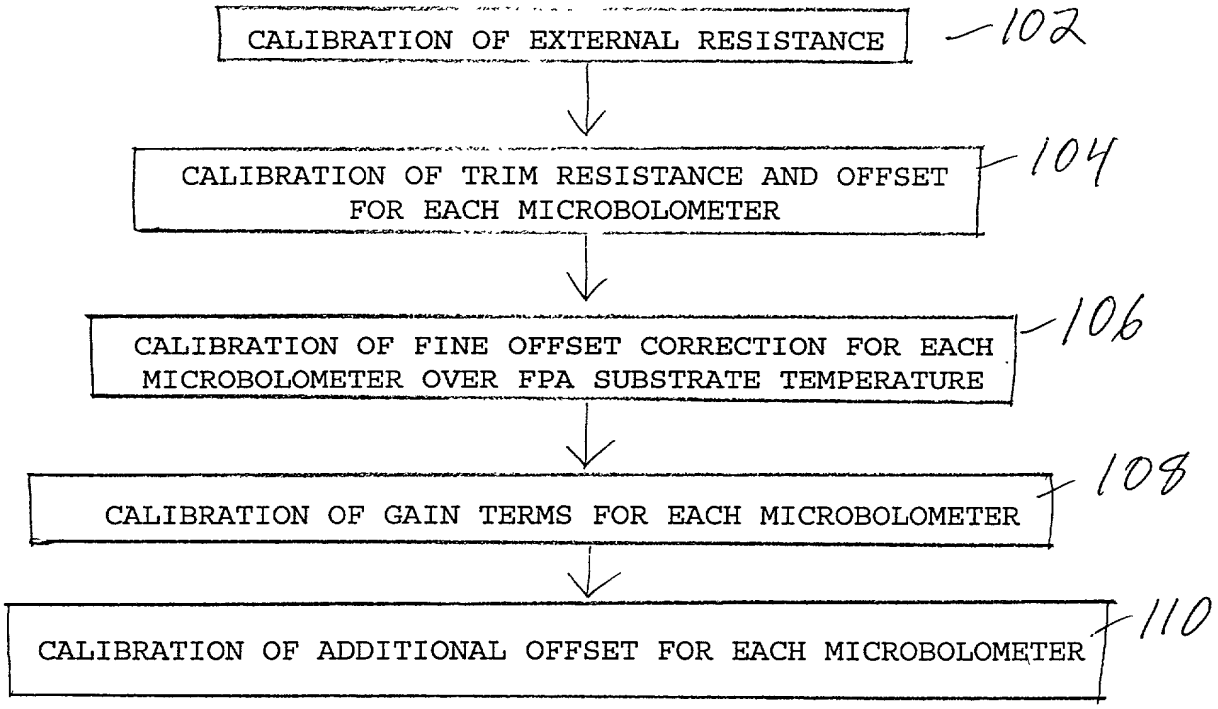


FIG. 15

SRA 12565 US

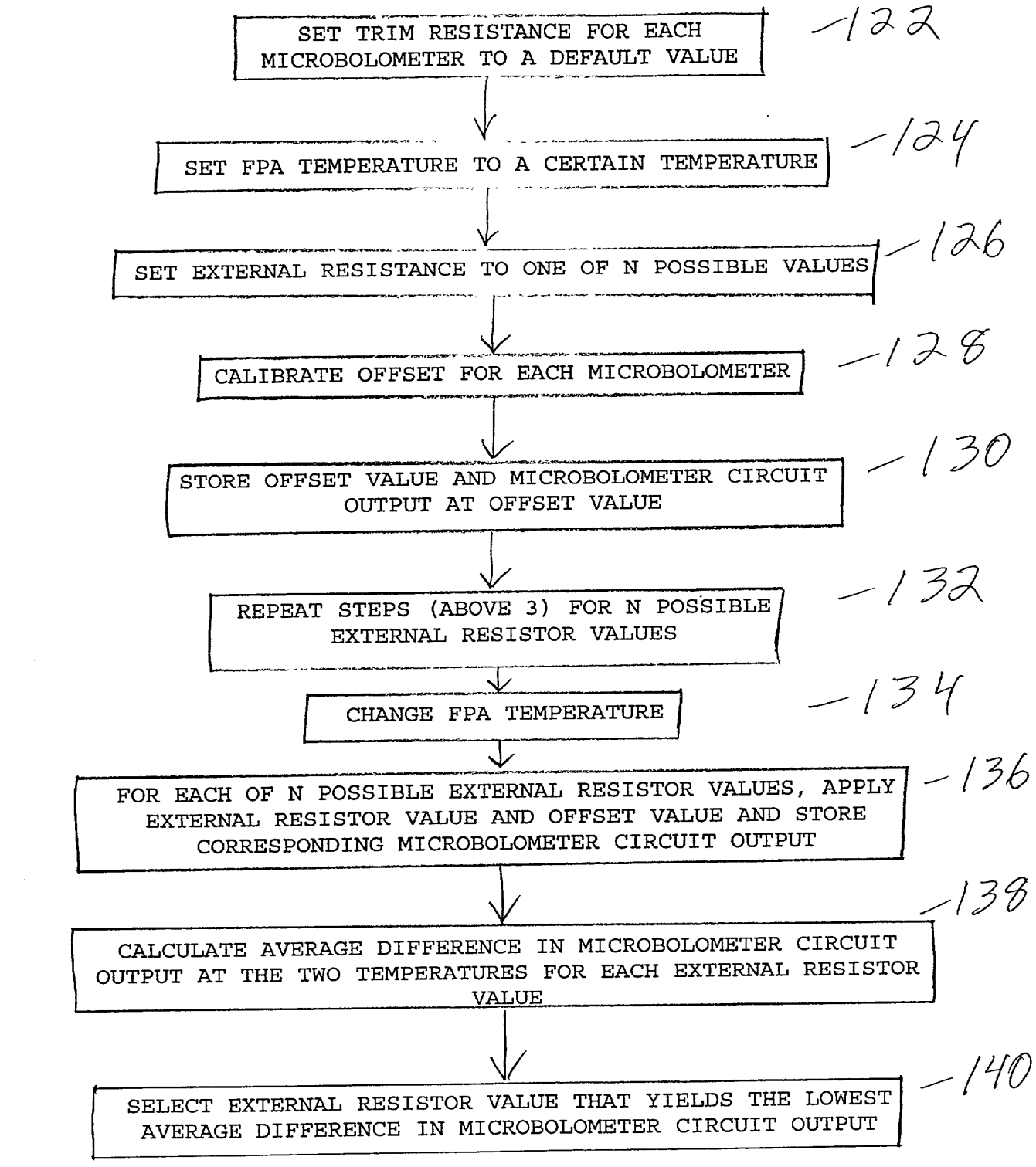


FIG. 16

12565US01

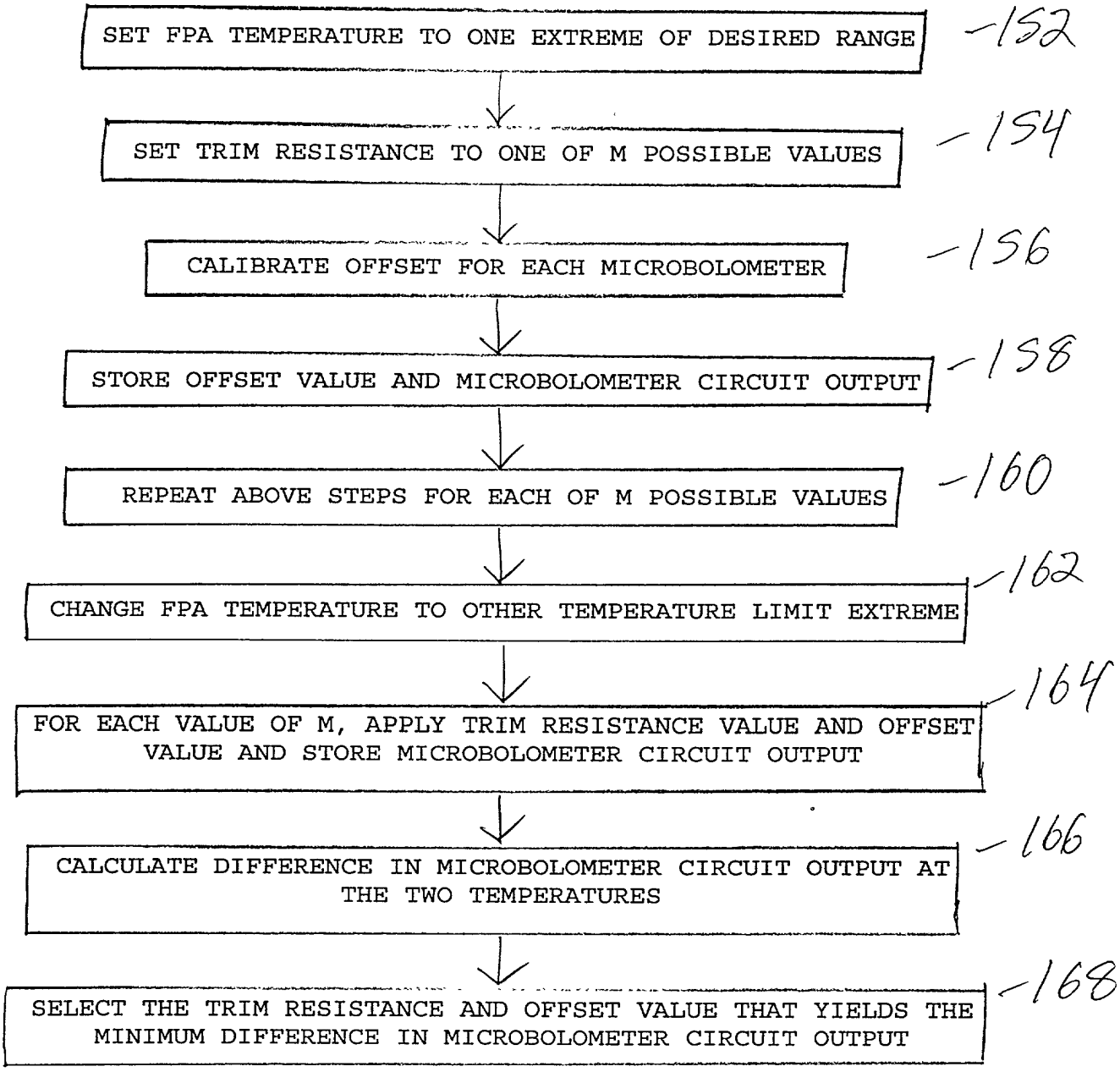


FIG. 17

Express Mail Label No. EV 339926504

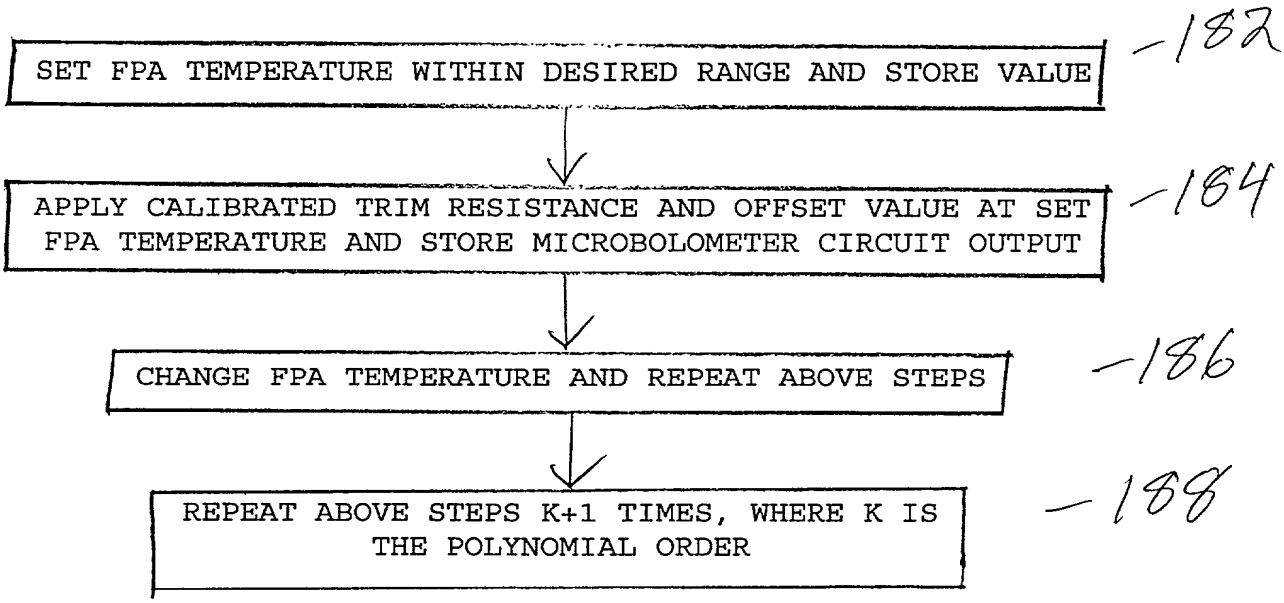


FIG. 18

Docket No. M-12565 US

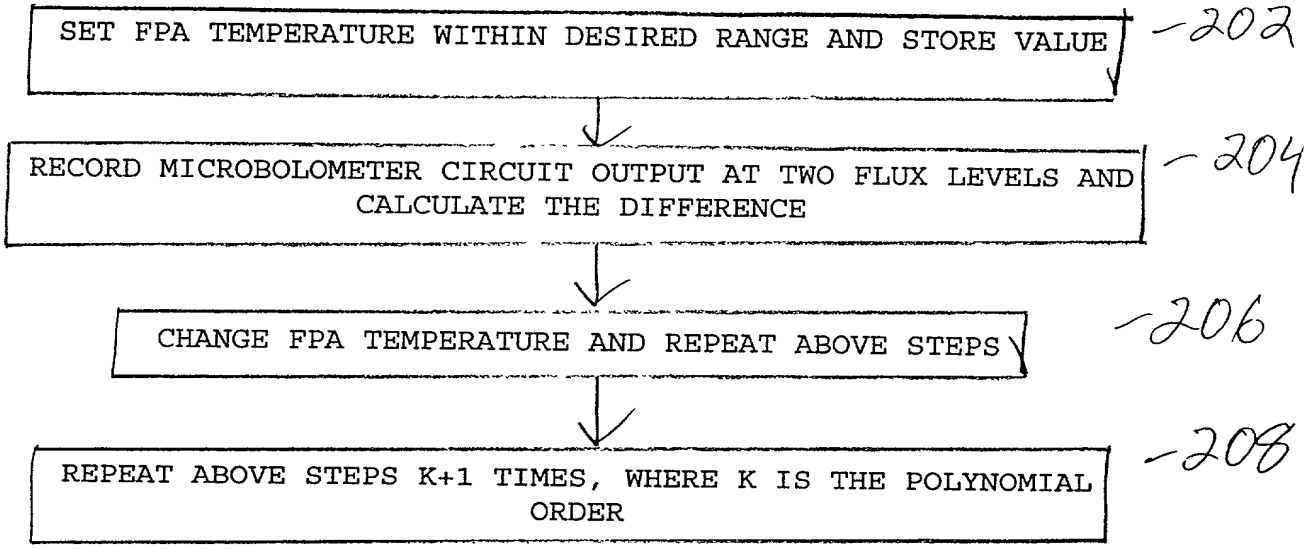
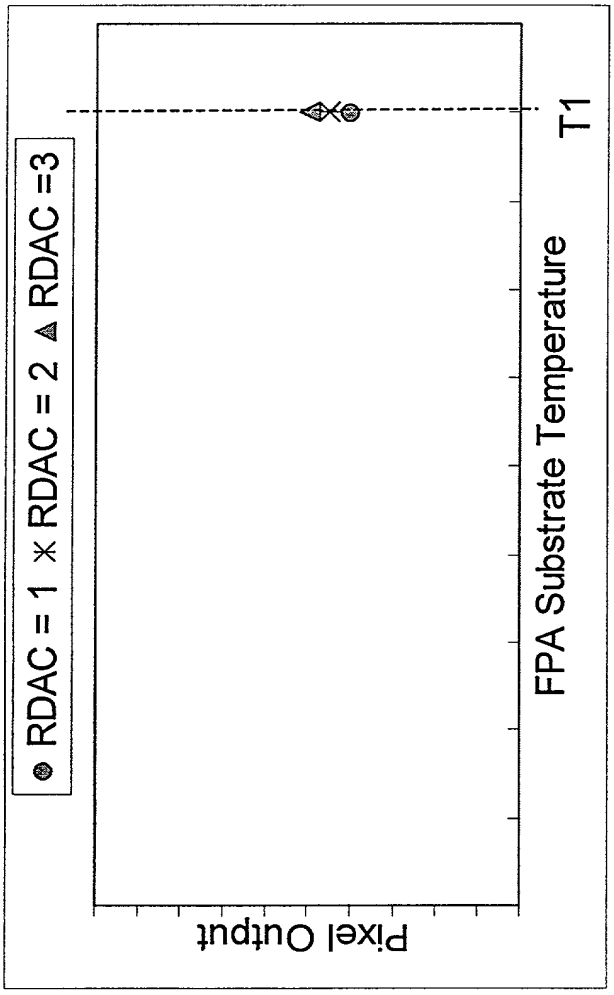


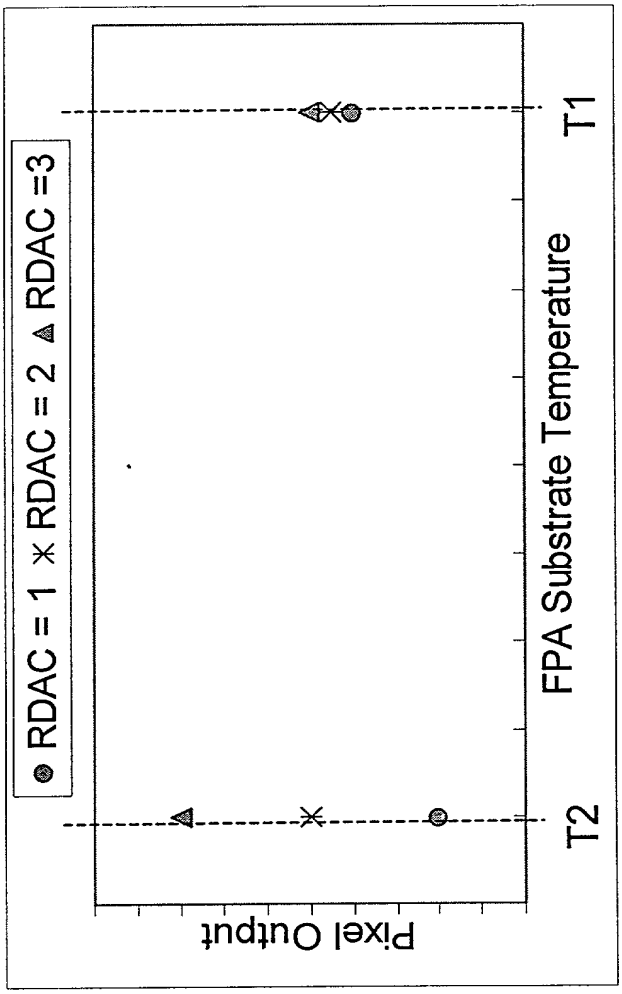
FIG. 19

Express Mail Label No. EV325928925US



RDAC value	ODAC value	Pixel output value at T1
1	$ODAC_1$	40%
2	$ODAC_2$	45%
3	$ODAC_3$	50%

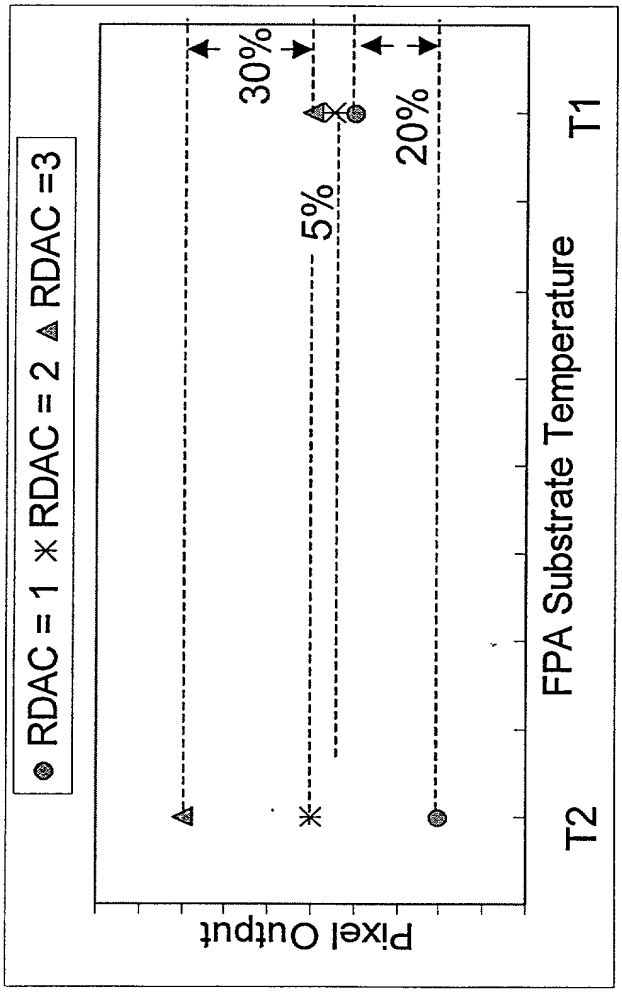
Fig. 20



RDAC value	ODAC value	Pixel output value at T1	Pixel output value at T2
1	$ODAC_1$	40%	20%
2	$ODAC_2$	45%	50%
3	$ODAC_3$	50%	80%

Fig. 21

20220926001



RDAC value	ODAC value	Pixel output value at T1	Pixel output value at T2	Difference (between output at T1 and T2)
1	$ODAC_1$	40%	20%	20%
2	$ODAC_2$	45%	50%	5% ← minimum difference
3	$ODAC_3$	50%	80%	30%

Fig. 2a

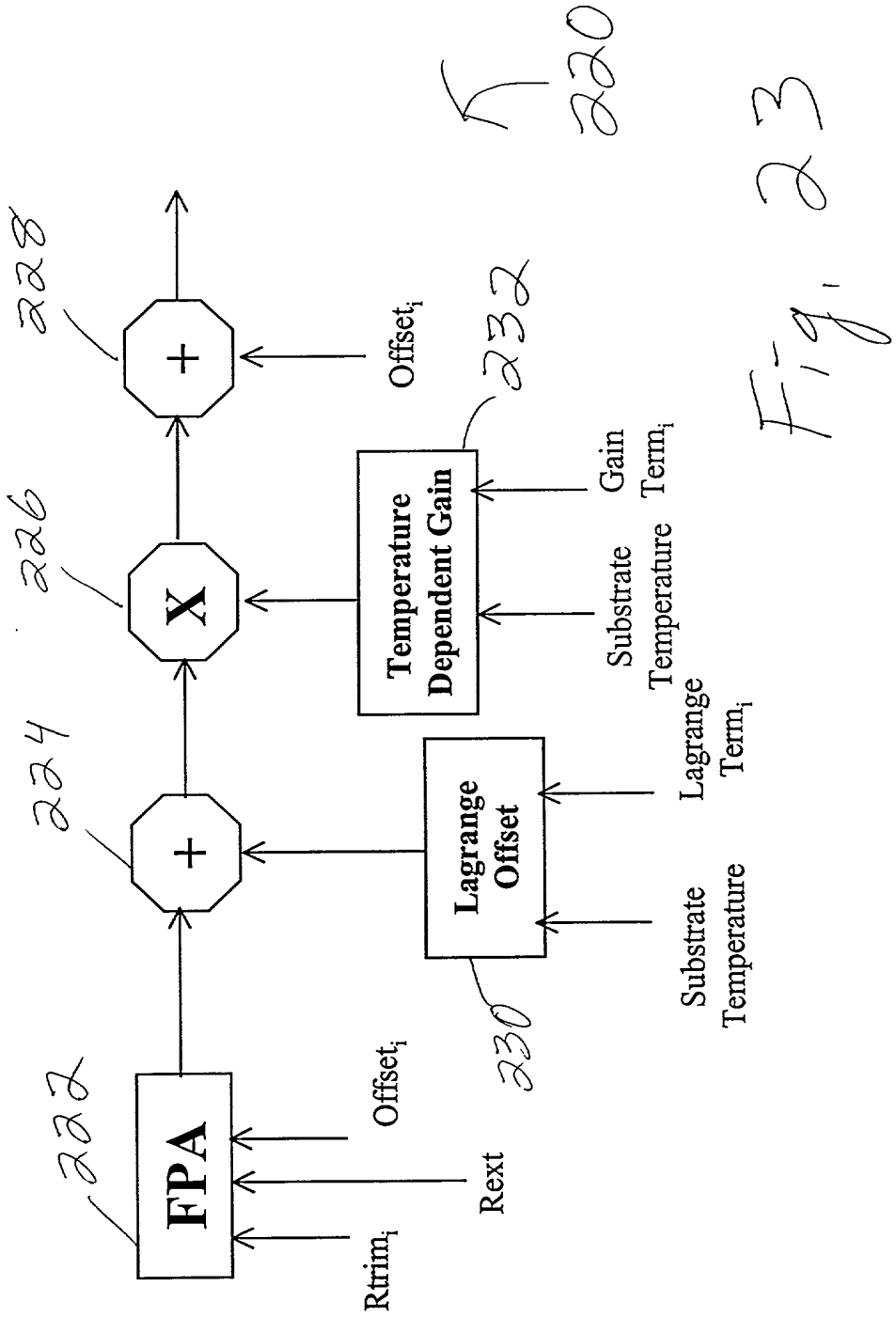


Fig. 23

20/2259 "2259 07

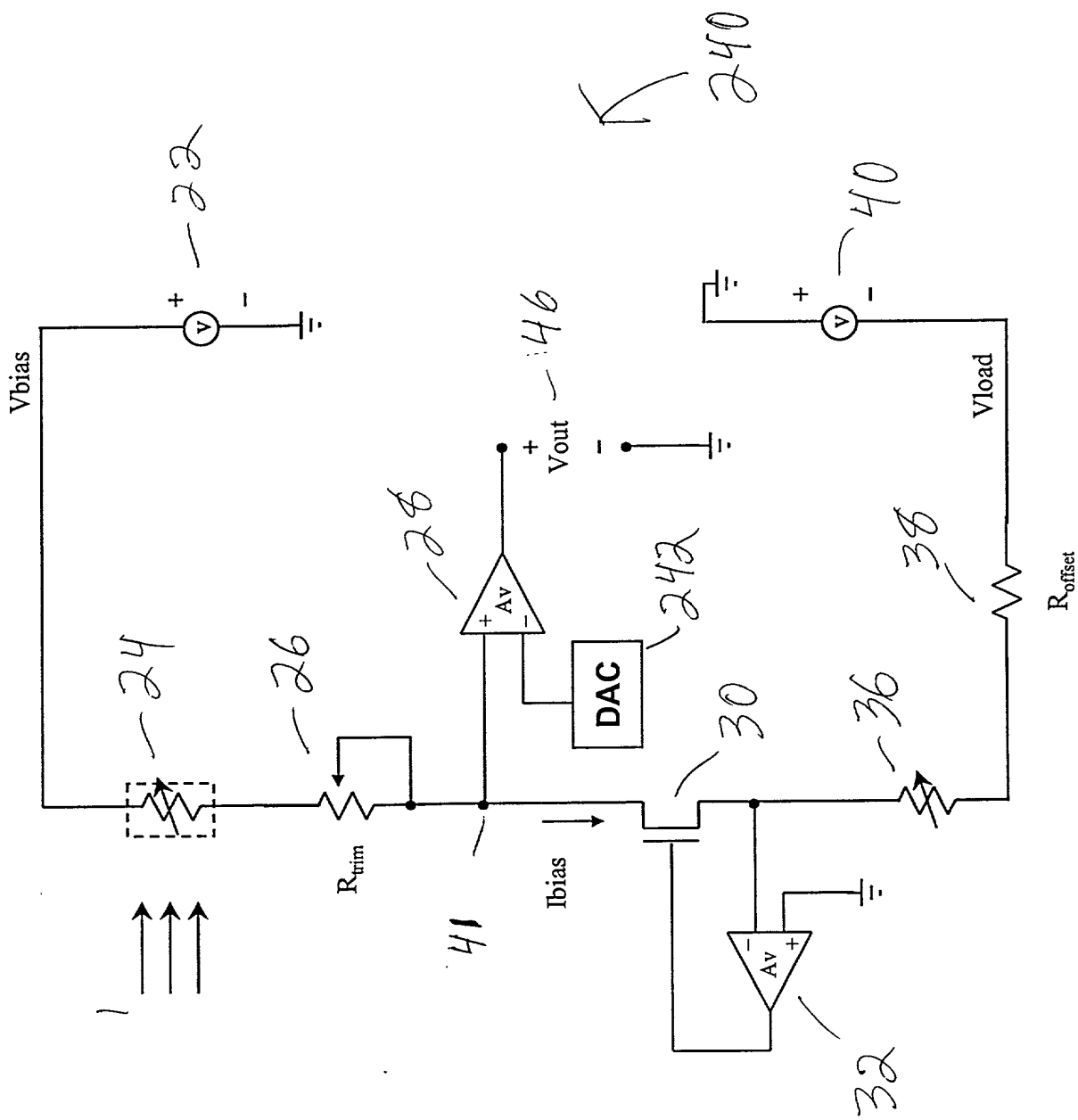

240
22
40
Vbias
Vout
46
Vload
28
Av
242
DAC
38
R_{offset}
24
26
30
36
R_{trim}
Ibias
41
Av
32

Fig. 24

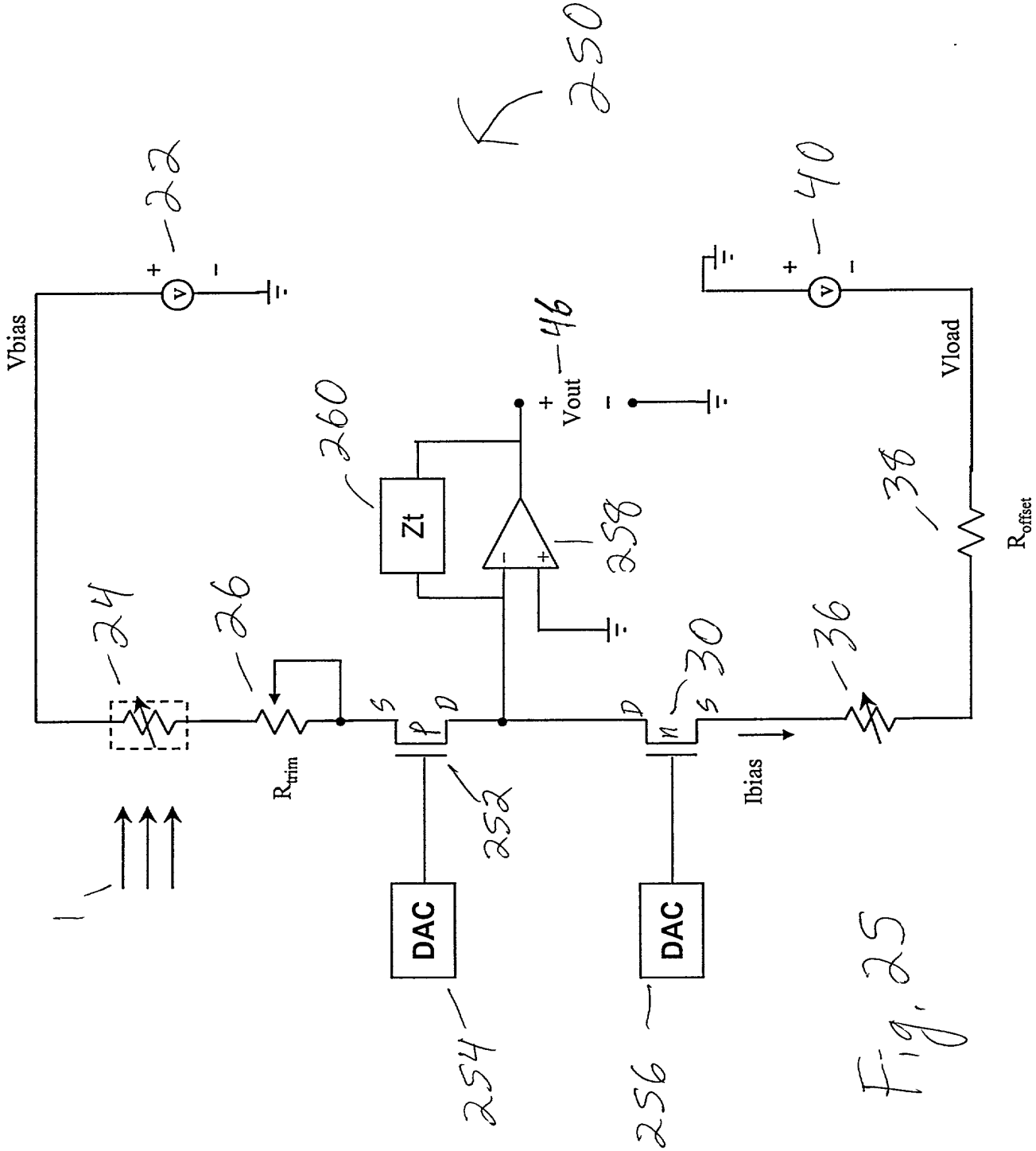

250
22
40
Vbias
Vload
46
Vout
260
Zt
258
38
R_{offset}
24
26
30
36
R_{trim}
252
Ibias
DAC
DAC
254
256

Fig. 25

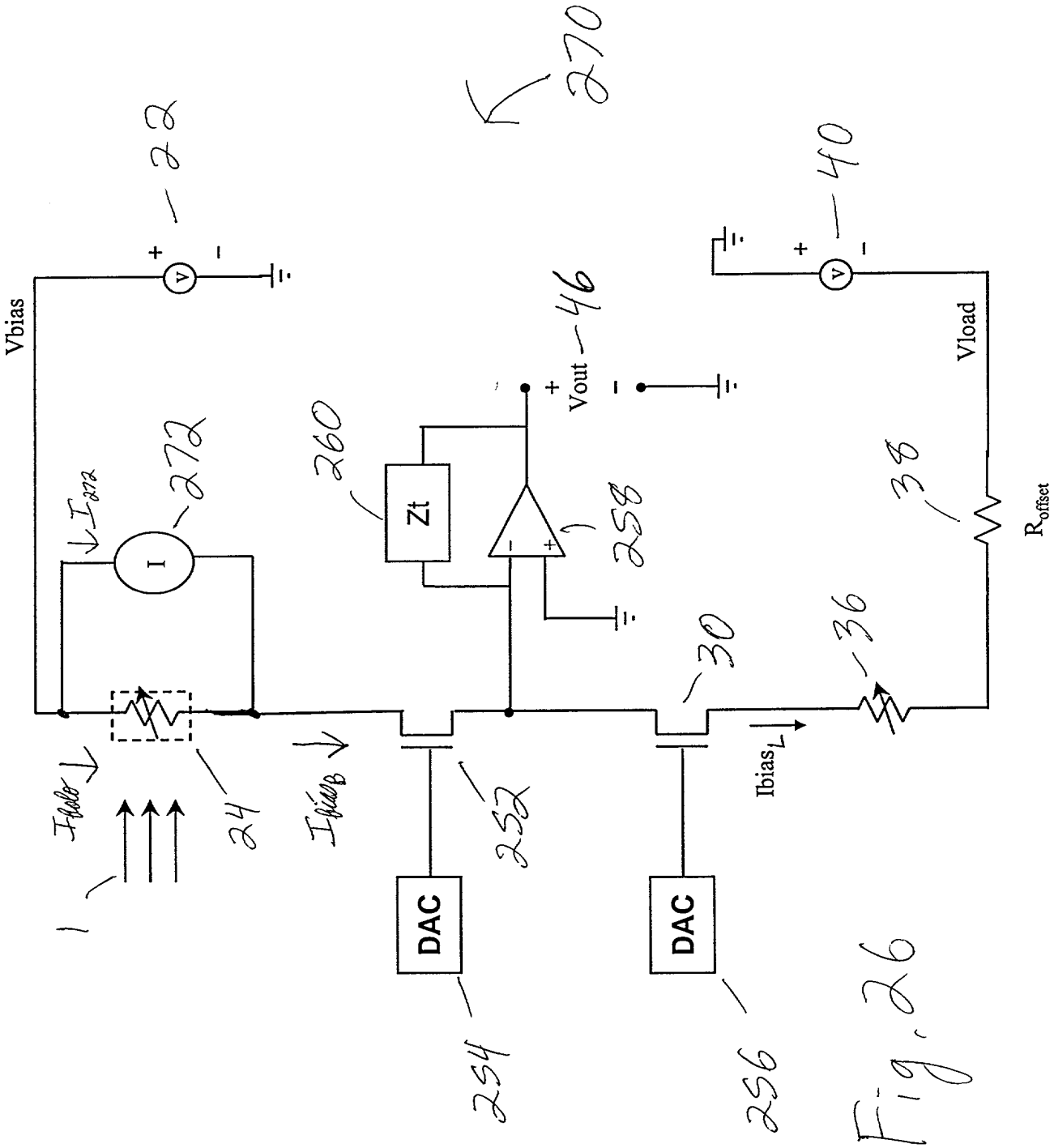

270
22
40
Vbias
Vload
Vout
46
260
Zt
272
I_{272}
258
38
R_{offset}
30
36
F_{bolo}
1
24
I_{bias_B}
252
$Ibias_L$
DAC
DAC
254
256

Fig. 26

EV 225 922 807

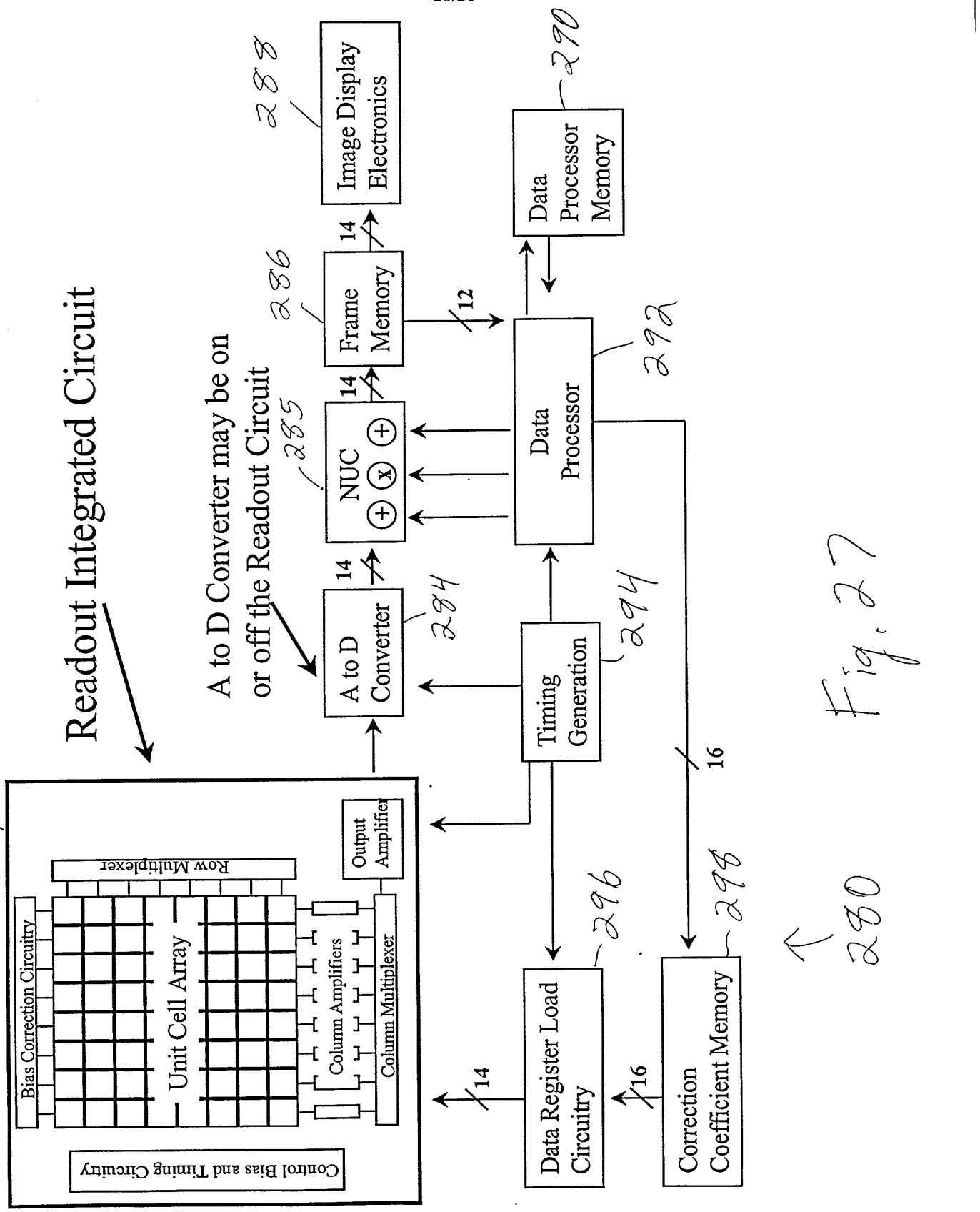


Fig. 27